



# Web Media API Snapshot Update

September 15, 2022

W3C TPAC 2022

## Topics to cover

- Intro to CTA WAVE
- Intro to the Web Media API Snapshot
- Proposed updates to WMAS2022  
(Web Media API Snapshot 2022)

# The CTA Web Application Video Ecosystem Project

- Aims to improve how Internet-delivered commercial video is handled on consumer electronics devices and to make it easier for content creators to distribute video to those devices
- Focuses on commercial Internet video and web applications, and developing interoperability tools for global compatibility
- Generally will not create new protocols or other standards, instead referencing accepted industry standards where possible, such as HTML5, MSE/EME, DASH and HLS



Source: <https://cta.tech/WAVE>

# CTA WAVE Task Forces/Groups & Deliverables

## HTML5 API Task Force (HATF)

- *Web Media API Snapshot*
  - Annual snapshot of web media APIs available on browsers

## Content Specification Task Force

- *Content Specification*
  - Based on MPEG CMAF
  - Compatible with DASH and HLS

## Device Playback Capability Task Force

- *Device Playback Capabilities Spec*
  - Testable requirements covering most common playback interoperability issues

## DASH-HLS Interoperability Group

- *DASH-HLS Interoperability Specification*
  - form of the CMAF presentations through a variety of use cases
  - how these presentations can be equivalently described through DASH & HLS

## Common Media Client Data Group

- *Common Media Client Data Specification*
  - outlines a simple means by which every media player can communicate data with each media object request and have it received and processed consistently by every CDN

## Common Media Server Data Group

- *Common Media Server Data Specification*
  - defines a standard means by which every media server (intermediate and origin) can communicate data with each media object response and have it received and processed consistently by every intermediary and player

## Common Access Token Group

- *Common Access Token Specification*
  - Building an interoperable authentication token specification for authentication with multiple CDNs

## Streaming Media Tracing Group

- *Streaming Media Tracing Specification*
  - observability of end-to-end streaming media delivery

# HTML5 API Task Force (HATF) & the Web Media API Snapshot (WMAS)

# What We Do in the HATF

Identify and document a minimum set of web standards for playback of audio-video content in HTML5, with an emphasis on adaptive streaming.

Our scope does not include definition of new APIs.

We focus on the four most widely adopted user agent code bases:

- Google Chrome / Chromium
- Microsoft Edge / Chromium
- Mozilla Firefox
- Safari / Webkit

Consumer electronic capabilities are also considered

**Deliverable:** Annual Web Media API Snapshot

# Web Media API Snapshot (WMAS)

- Work occurs within the W3C Web Media API Community Group
  - <https://www.w3.org/community/webmediaapi/>
  - <https://w3c.github.io/webmediaapi/>
- WMAS is updated every December since original snapshot in 2017
- CTA and W3C have agreement to co-publish WMAS
  - W3C Community Group Note - <https://www.w3.org/2021/12/webmediaapi.html>
  - CTA WAVE Specification (CTA-5000) - <https://cdn.cta.tech/cta/media/media/resources/standards/pdfs/cta-5000-d-final.pdf>
- Referenced by other industry standard groups to set their user agent requirements
- WMAS Automated Test Suite helps to ensure devices meet these guidelines

# Web Media API Snapshot (WMAS)

- Sources for decision making for annual updates
  - caniuse.com
  - @mdn/browser-compat-data
  - kangax ECMAScript compatibility tables
  - web-platform-tests
  - Testing on devices
  - Research



# Anticipated Web Media API 2022 Snapshot Updates

- ECMAScript 2022
  - with a few minor exceptions
- Additional CSS specification support:
  - CSS Cascading and Inheritance Level 4
  - CSS Containment Module Level 1
  - CSS Logical Properties and Values Level 1
  - Resize Observer
  - Web Animations
- Update references to all WHATWG specs to a recent Review Draft
- WebRTC
  - Only receiving is required
- Future Considerations:
  - WebAssembly

On track to be published in December 2022

Current Draft: <https://w3c.github.io/webmediaapi/>

Issues: <https://github.com/w3c/webmediaapi/issues>